giving results of experimentation directed to the possibility of a cure of pneumococcus infection. The author considers that we may liken lobar pneumonia in man directly to pneumococcus infection in animals. A rabbit is extremely susceptible, with production of a general systemic infection from which recovery may occur by crisis; the dog, on the other hand, tends to show local tissue reaction due to the fact that its protective mechanism is powerful, so that although there be characteristic lung lesions, crisis does not occur. Wadsworth is inclined to think that it is the bacteriemia rather than the lung lesion which accounts for many of the manifestations of the disease seen in man. The extensive lesion is an expression of the efficiency of the protective mechanism of the body, with the result that infectious agents in such lesions may actually disappear. Extensive lesions, however, are due at their inception to virulent pneumococci, and this virulence is a necessity before the systemic manifestations can occur. Immune sera are well known to vary greatly in their curative value, although this does not necessarily mean that their protective action is slight. When animals are actively immunized, their immunity to culture filtrates is very definite, but injections with dead culture material are by no means so efficient as injections with virulent living cultures. In rabbits, treatment with such serum induces crisis and cure, but although virulent pneumococci show little reaction in the test-tube to a given serum, nevertheless subsequent infection by the special organism is an exception to the general rule. The pneumococcus toxins are presumably active only in the body tissues, and manifestations of the disease arise from this action. Immune sera can neutralize these poisons and terminate the symptoms of the disease, the pneumococci remaining as parasites to be destroyed in the ordinary course of events. This immunization may occur quickly and completely as in crisis, or in contrary manner, as in lysis. By analogy, Wadsworth considers that sera from animals highly immunized with living cultures of virulent organisms ought to cure the disease.

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**Hemoglobinemia and Hemoglobinuria.**—PEARCE, AUSTIN, and EISENBREY (*Jour. Exp. Med.*, September, 1912, xvi, No. 3) give details of experiments with normal and splenectomized animals with regard to the excretion of hemoglobin. They find that there is a "threshold value" for the kidneys by which, when a concentration of 0.06 grams of hemoglobin per kilo of body weight is reached, the hemoglobin appears in the urine. The amount of hemoglobin per kilo of body weight which may exist without excess of bile pigments appearing in the urine, is about 0.22 grams, and this marks the "threshold value" of hemoglobin for the liver, although it is pointed out that the more slowly the hemoglobin is injected, the less likelihood is there of the appearance of choluria. When a relatively large amount of hemoglobin is injected intravenously, hemoglobinuria appears in a very few minutes; if a relatively small quantity be injected rapidly, it may appear with choluria; even moderately large amounts slowly injected may be eliminated without the occurrence of choluria. The absence of the spleen does not appear to affect the elimination of hemoglobin by the kidneys. Pearce, Austin and Eisenbrey's idea is that hemoglobinuria does not occur until hemoglobinemia reaches the level of 0.06 gram per kilo body weight. When this amount is surpassed hemoglobinuria occurs, and when the concentration is less than this it ceases. The liver, however, and perhaps other tissues, take up hemoglobin as soon as it appears in the serum, and deal with it regardless of its excretion by the urine. The kidneys remove 17 to 36 per cent., and the liver takes the rest to be transformed into bile pigment. If the circulation be flooded with a large amount of hemoglobin absorbed rapidly, the bile pigments cannot be rapidly enough removed, and reabsorption into the blood occurs with the appearance of choluria. Pearce, Austin, and Eisenbrey would thus explain those cases in which hemolysis is accompanied by jaundice without hemoglobinuria; the liver removes the hemoglobin so rapidly that the minimum necessary for hemoglobinuria is not reached. Nevertheless, even under these circumstances a liver may absorb a large amount of hemoglobin so that bile formation is so excessive that jaundice appears. As a corollary to this, a very large amount of hemoglobin appears quickly in the urine until the excess has been removed, when it no longer appears, the slow elimination of the remainder by the liver causing the subsequent choluria. Experiments by Pearce, Austin, and Krumbharr with regard to splenectomy leads them to suppose that the spleen is essential for the breaking up of hemoglobin, or for the building up of its derivatives, and that there is an interrelation between the spleen and the blood-forming organisms, as well as between the spleen and other blood-disintegrating organisms. The bile-forming function of the liver is disturbed by splenectomy so that in the first four weeks after the operation, hemoglobinuria was not followed by jaundice, while after a period of three and a half months jaundice occasionally occurs, apparently indicating a rehabilitation of the function of the liver.

**Salvarsan and Sublimate.**—An account was recently given (*Jour. de Phys. et Path.*, July 15, 1912, xiv, No. 4) in which MOREL, MOURIQUAND, and POLICARD have made a comparison between the effects of toxic doses of salvarsan and of bichloride of mercury. Salvarsan has, relatively, a slight effect upon the kidney and a relatively marked effect upon the liver; about three times as much arsenic will lodge in the hepatic cells as will be found in the renal epithelium. As is well known, bichloride of mercury attacks the kidney with great avidity, so that the organ is rapidly damaged; on the contrary, its action upon the liver is relatively slow and slight, the action in each case bearing a direct relationship to the amount of the drug. It may be recalled that Oettinger and Fiessinger were enabled to examine a case of poisoning by intramuscular injection of mercury, and to discover 0.01 centigram of mercury for each 1000 gram of liver tissue, while three times as much was found per 1000 grams of kidney tissue.

**The Distribution of Iodine in Normal and in Syphilitic Tissue.**—The researches of O. LOEB (*Archiv. f. Exp. Path.*, 1912, lxix, 108) upon this subject support the belief that when iodid of potash is absorbed in health it does not remain in any demonstrable quantity in the